

ABSTRACT OF THE DISCLOSURE

5 A magneto-resistive effect element includes a first  
ferromagnetic film; a second ferromagnetic film; and a first  
nonmagnetic film interposed between the first ferromagnetic  
film and the second ferromagnetic film. The first  
ferromagnetic film has a magnetization more easily rotatable  
than a magnetization of the second ferromagnetic film by  
an external magnetic field. The first ferromagnetic film  
10 has an effective magnetic thickness of about 2 nm or less.